



Makro·4Grip round part clamping

PATENT PENDING

Stamping Technology for round parts

Due to its efficiency and the beneficial characteristics for workholding the LANG stamping technology still is the benchmark when it comes to processing raw parts in 5-axis machining. With the Makro·4Grip Clamping System there are completely new possibilities and applications for the stamping technology. **By retrofitting the Makro·Grip® stamping unit and LANG centring vices the form-closure clamping technology can be applied for round parts now easily and cost efficiently.**

The jaws grip the pre-stamped part in four indentations at a clamping depth of 6.5 mm with up to 20 kN and therefore realise

the same form-closure effect as for the well-proven system for prismatic parts. Makro·4Grip covers a clamping range of Ø 36 mm to Ø 300 mm and thus provides a seamless transition from the maximum range of the Preci·Point Collet Chuck.

The Makro·4Grip system consists of universal stamping jaws including stamping inserts for individual positioning as well as matching clamping jaws for all sizes of LANG centring vices. The clamping jaws are available as a separate set of jaws for all 77 and 125 vices.

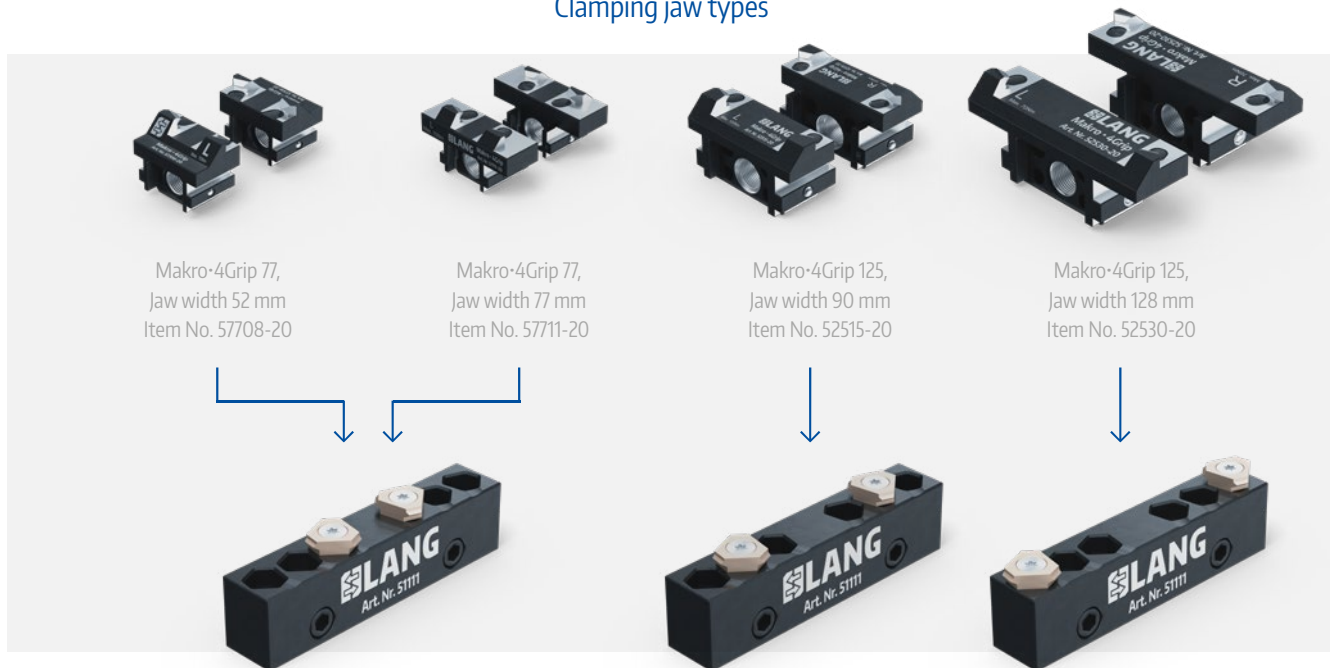
Makro·4Grip Stamping Technology

The right setup

According to the vice and clamping jaw size used in the machining process the four stamping inserts (2 inserts per stamping jaw) are placed differently in the respective seats.

The scheme below shows how the stamping inserts need to be positioned for each clamping setup.

Clamping jaw types



Positioning of the stamping inserts

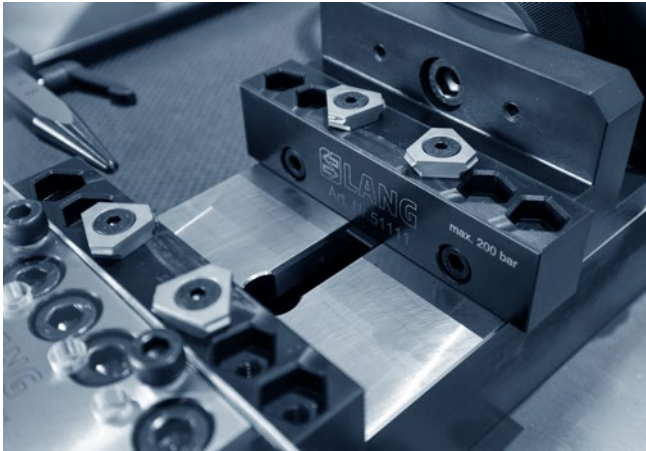
Stamping imprint

Opposed to stamping cubic parts where control marks give an indication about the correct stamping depth, the Makro·4Grip technology relies on a visual examination. Stamping round material, the correct imprint is consistently thick and deep.

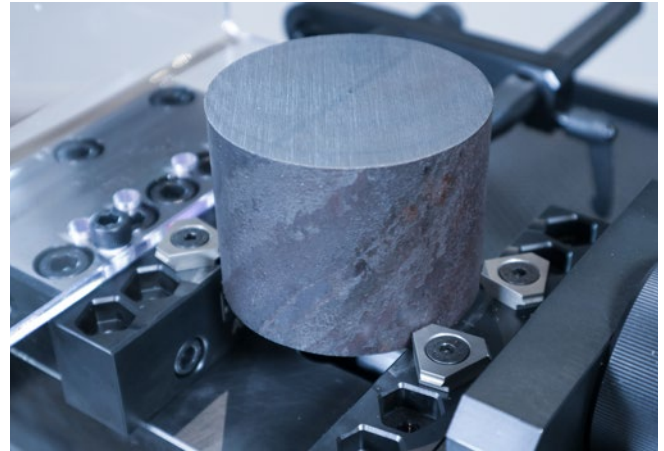
The required stamping pressure and depth depends on material and its diameter. In general, we recommend always starting with a low stamping pressure and slowly increasing it until the desired stamping depth in the workpiece is achieved.



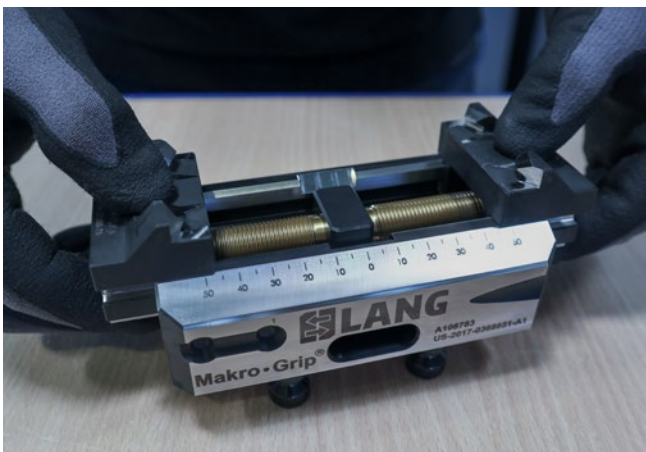
Makro·4Grip Applications



Makro·4Grip stamping jaws are suitable for all versions of Makro·Grip® stamping units.



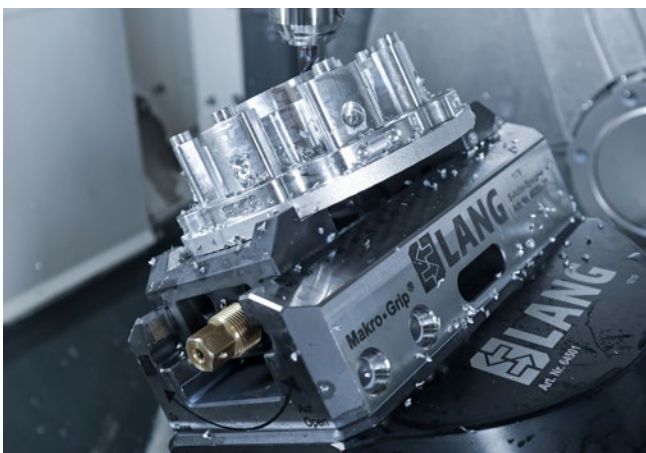
The external pre-stamping process of the blank ensures the form-closure effect between stamping indentation and serration of the clamping jaw.



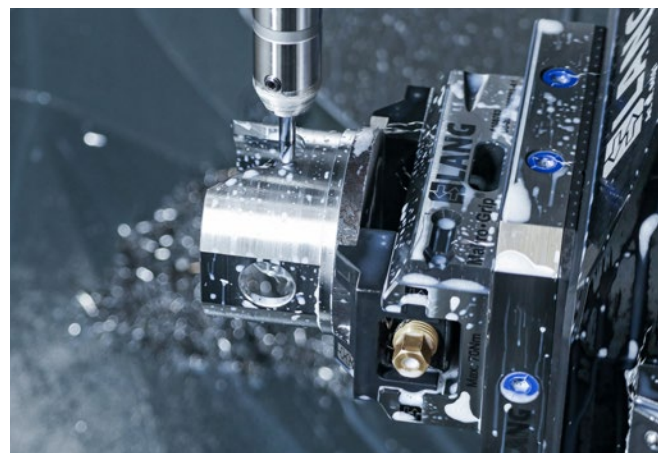
The Makro·4Grip clamping jaws are available as a retrofit for all sizes of LANG vices.



The clamping jaws grip the pre-stamped workpiece in four indentations.



Due to its retrofitting capability Makro·4Grip jaws are suitable for automated manufacturing.



Makro·4Grip provides another option for milling round stock.

Makro·4Grip Stamping Jaws and Inserts



MAKRO·4GRIP STAMPING JAWS

ITEM NO.	QUANTITY
51111	1 pair

4 stamping jaw inserts are included.
Suitable for all Makro·Grip® stamping unit versions!



MAKRO·4GRIP STAMPING JAW INSERTS

ITEM NO.	QUANTITY
51111-40	4 pcs.

Each stamping jaw insert has a total of three cutting edges. If a cutting edge is worn, the stamping jaw insert can be turned two more times. For an even stamping and clamping quality, make sure that all four stamping inserts are turned / exchanged at the same time.



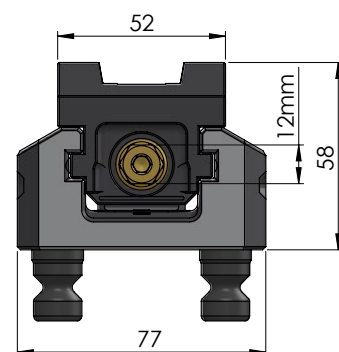
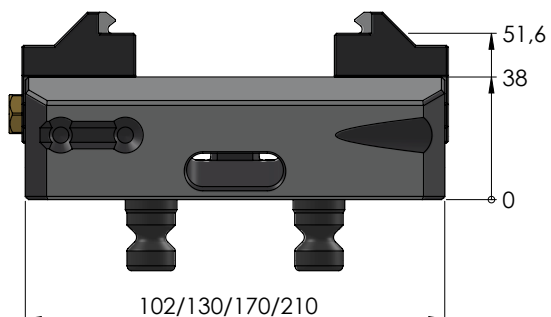
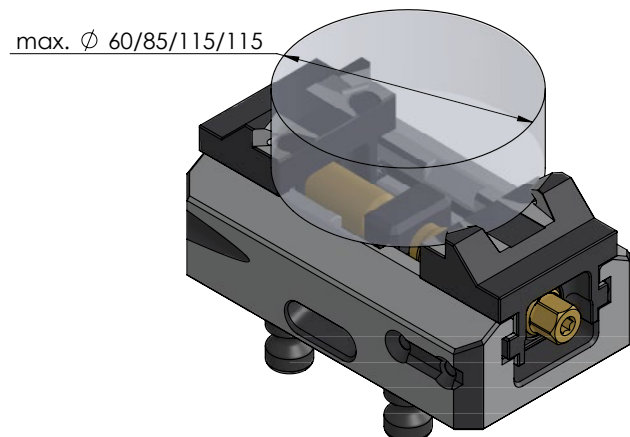
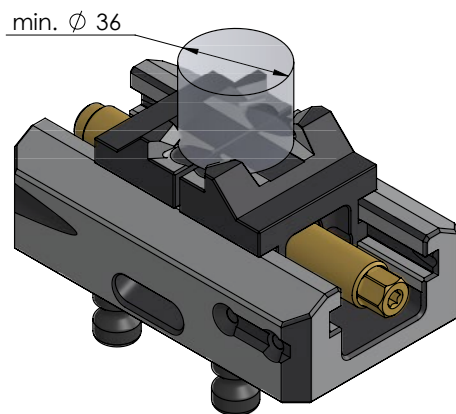
Makro·4Grip 77 Clamping Jaws

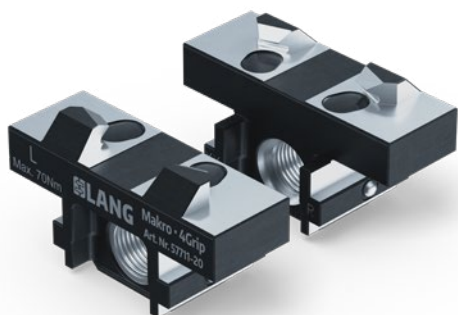


MAKRO·4GRIP 77 CLAMPING JAWS JAW WIDTH 52 MM, ITEM NO. 57708-20

FOR MAKRO·GRIP® 77	CLAMPING RANGE
48085-46 / -77	Ø 36 – 60 mm
48120-46 / -77	Ø 36 – 85 mm
48160-77	Ø 36 – 115 mm
48200-77	Ø 36 – 115 mm
47085*	Ø 43 – 60 mm
47120*	Ø 43 – 85 mm
47160*	Ø 43 – 115 mm
47200*	Ø 43 – 115 mm

* former Makro·Grip® versions

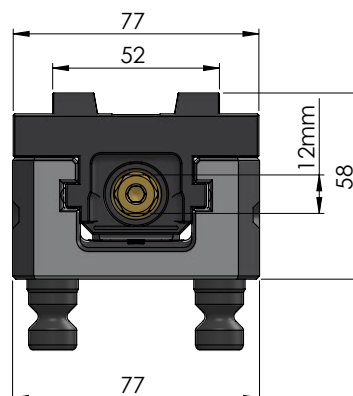
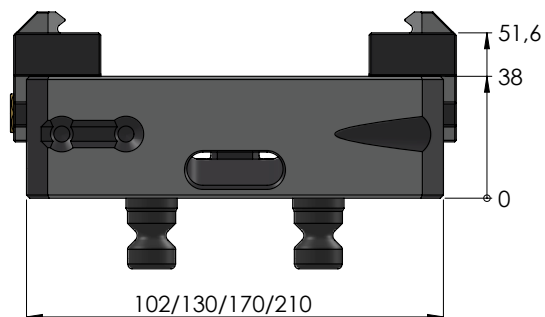
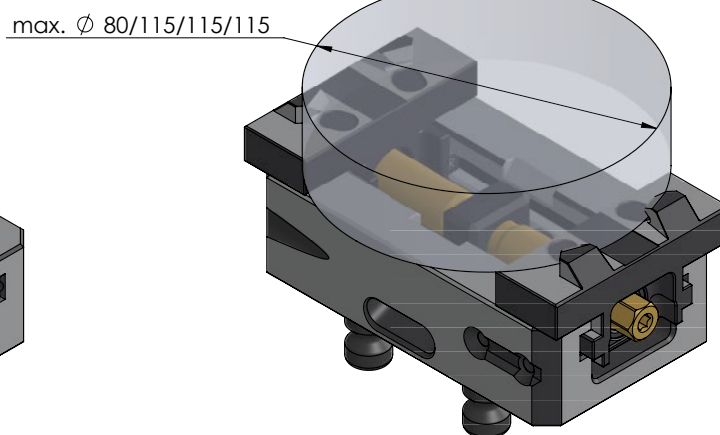
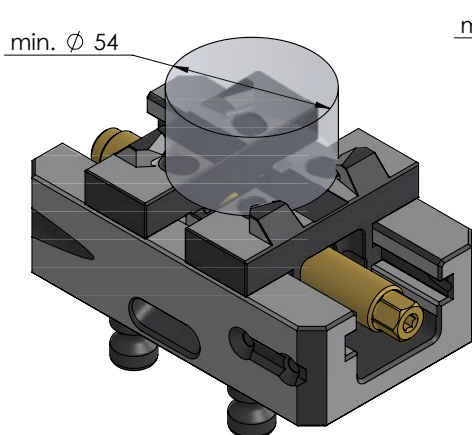




MAKRO-4GRIP 77 CLAMPING JAWS JAW WIDTH 77 MM, ITEM NO. 57711-20

FOR MAKRO-GRIP® 77	CLAMPING RANGE
48085-46 / -77	Ø 54 – 80 mm
48120-46 / -77	Ø 54 – 115 mm
48160-77	Ø 54 – 115 mm
48200-77	Ø 54 – 115 mm
47085*	Ø 65 – 80 mm
47120*	Ø 65 – 115 mm
47160*	Ø 65 – 115 mm
47200*	Ø 65 – 115 mm

* former Makro-Grip® versions



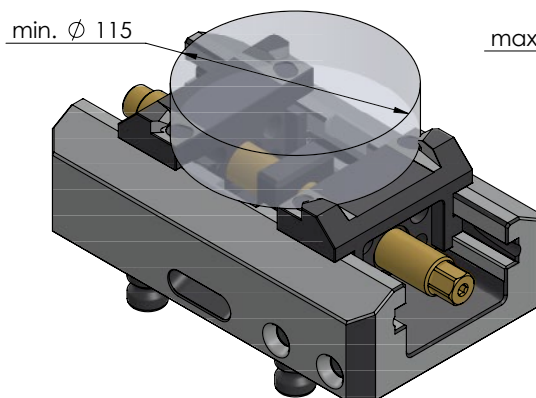
Makro·4Grip 125 Clamping Jaws



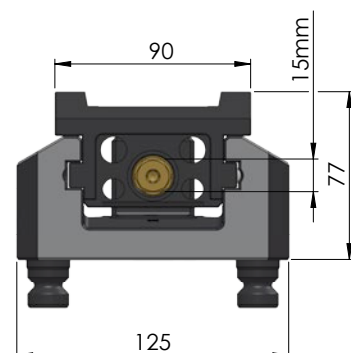
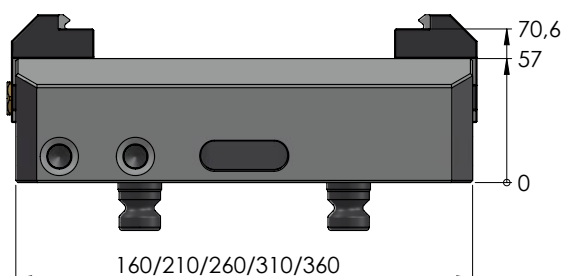
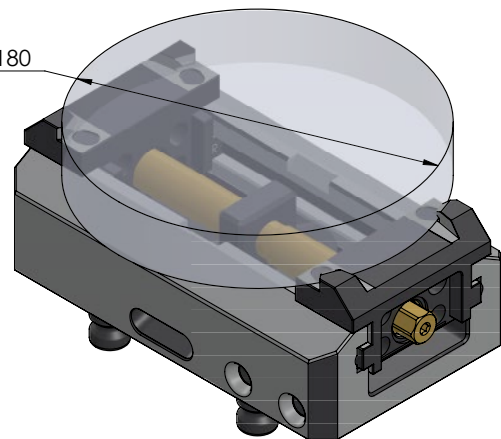
MAKRO·4GRIP 125 CLAMPING JAWS JAW WIDTH 90 MM, ITEM NO. 52515-20

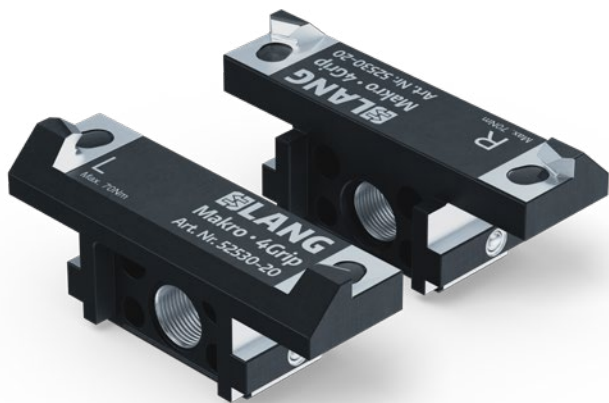
FOR MAKRO·GRIP® 125	CLAMPING RANGE
48155-77 / -125	Ø 115 – 130 mm
48205-77 / -125	Ø 115 – 180 mm
48255-125	Ø 115 – 180 mm
48305-125	Ø 115 – 180 mm
48355-125	Ø 115 – 180 mm
47155*	Ø 115 – 130 mm
47205*	Ø 115 – 180 mm
47255*	Ø 115 – 180 mm
47305*	Ø 115 – 180 mm
47355*	Ø 115 – 180 mm

* former Makro·Grip® versions



max. Ø 130/180/180/180/180

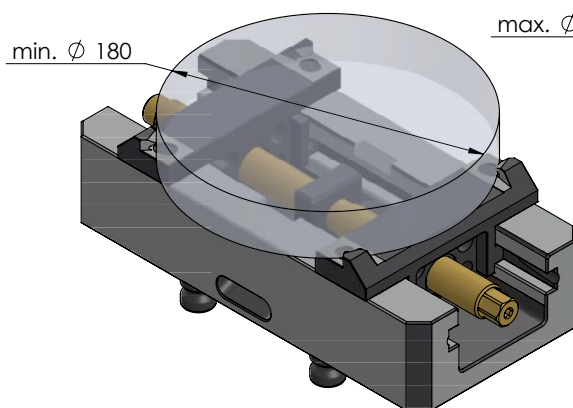




MAKRO-4GRIP 125 CLAMPING JAWS JAW WIDTH 128 MM, ITEM NO. 52530-20

FOR MAKRO-GRIP® 125	CLAMPING RANGE
48155-77 / -125	-
48205-77 / -125	Ø 180 – 200 mm
48255-125	Ø 180 – 245 mm
48305-125	Ø 180 – 290 mm
48355-125	Ø 180 – 300 mm
47155*	-
47205*	Ø 180 – 200 mm
47255*	Ø 180 – 245 mm
47305*	Ø 180 – 290 mm
47355*	Ø 180 – 300 mm

* former Makro-Grip® versions



max. Ø -/200/245/290/300

